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Second Generation Night Observation Device

Background. TRANSVARO Elektron Aletleri Sanayi Ve Ticaret A.S. of Istanbul, Turkey, is marketing the Model 9885A Second Generation Night Observation Device (NOD).

Description. The NOD is a tripod mounted night vision sight typically used for long range surveillance when maximum performance and minimal operator fatigue are of primary importance. The exceptional performance of the NOD can be attributed to its high quality objective and the 25-mm microchannel plate image intensifier tube. Automatic Brightness Control (ABC) is a standard feature for the NOD. The ABC feature permits viewing during the twilight hours of dusk and dawn and protects the tube against bright flashes of light. The tube features muzzle-flash protection which prevents the tube from being damaged by high intensity short duration flashes of light. The flash protection circuit is designed to recover in time for the observer to see the round hit the target. The NOD is furnished in a metal carrying case that includes two extra batteries, cleaning kit, and table top tripod. Optional features available include a binocular eyepiece for viewing with both eyes, a heavy duty tripod, 35-mm SLR relay and 16-mm video relay for night photography. Additionally, the NOD operates on "AA" batteries.

Specifications

Optical

Magnification	X9.4
Field of view	5.6°
T number	1.7
F number	1.23
Focal length of objective	255 mm
Format size	25 mm

Mechanical

Length	41.2 cm
Diameter	26 cm
Weight	11.62 kg
Mounting	Tripod

Electrical

Power (2 "AA" batteries)	3.0 VDC
Battery life	15 hrs. +

Environmental

Temperature	-54°C/ + 54°C Operating -57°C/ + 65°C Non-operating
Humidity	98% Operating and Non-operating
Altitude	3,000 meters Operating 12,000 meters Non-operating

Image tube

Type	2nd Generation 25 mm microchannel inverter
Typical resolution	28 lp/mm
Photocathode	S-20 VR
ABC	Standard

System resolution

100% Contrast	
001 lux	3.6 lp/mm
1 lux	5.1 lp/mm
30% Contrast	
001 lux	2.6 lp/mm
1 lux	4.6 lp/mm

Image Intensifier Tube

Specification	Model 3603-1
Nominal operating voltage	2.65 VDC
Minimum resolution (center)	28 lp/mm
Minimum Resolution (of center)	25 lp/mm
Magnification	96 to 1.04
Gain	30,000 min
Focusing method	Electrostatic
Photocathode	S-20 extended red
Cathode sensitivity	240 μ A/lumen
Red Response:	
8000A	15 ma/watt
8500A	10 ma/watt
9000A	on request
Useful cathode diameter	25 mm
Phosphor	Aluminized P-20
Equivalent Background input	2×10^{-11} lumen/cm ²
Distortion	5% maximum
Modulation transfer function	
2.5 lp/mm	90%
7.5 lp/mm	60%
15 lp/mm	25%

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For further information contact TRANSVARO Elektronik Aletleri Sanayi ve Ticaret A.S., Barbaros Bulvarı Emlak Kredi Blokları B Blok 89/2, Beşiktaş, İstanbul, Turkey. Telephone 158 43 34, FAX 1618050, TELEX 26 221.

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